

months for the ear of Drs. Butler and Earle? Is there not some reason to suspect that they were trumped up for the occasion by the prisoner, and that the doctors were cheated? There is certainly enough ground for such a suspicion to leave us in doubt about the case, and to warrant the assertion that the question whether Clark is an insane man is wholly undecided.

The investigation of this question was not a thorough one. It was not such as should satisfy scientific men. The three months' gap in the evidence stretches over a period of the utmost importance in the investigation. Then, if at any time, when the homicide was a fresh event, and there had been no conference on the part of Clark with counsel, could his mental condition be ascertained. But a delay of three months gave him ample time to hit upon a plan for simulating insanity. Most persons, it is true, fail in such attempts; but that success is impossible cannot be asserted, and we can easily see how a man of Clark's mental character could, under the circumstances, succeed.

The difficulty in this case would have been avoided if the French plan of a commission of lunacy were in use in this country. Such a commission, appointed by the government, and acting wholly independently of either side of the case, would be unbiassed in their investigations. Moreover, as they would in every case begin their observations at once, there would be no such loss of the golden opportunity for observation as there was in the case that we have narrated. The investigations prosecuted by this commission in some cases in France are of the most rigid and varied character. If the case be at all doubtful, every possible test is applied; and full notes are taken as the investigation proceeds. Upon these notes the commission make their report under oath. These reports are esteemed by scientific men as of great value, and the conclusions at which the commission arrived are acquiesced in by the community. There is none of the feeling which so often exists in this country, that the question of insanity has not been fully and fairly investigated. We hope that soon the plan will be adopted among us, as the security of society and the interests of humanity and science demand it.

There are some other points in the legal relations of insanity which we would like to remark upon in connection with this subject, but it would make this article too long.

W. H.

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ART. XV.—*Clinical Lectures on the Principles and Practice of Medicine.*

By JOHN HUGHES BENNETT, M. D., F. R. S. E., Professor of the Institutes of Medicine, and Senior Professor of Clinical Medicine in the University of Edinburgh. Second edition, New York, Samuel S. and W. Wood, 1858; pp. 951, 8vo.

SOME of the views and opinions set forth prominently in this second edition of Dr. Bennett's lectures, have given rise to much controversy and discussion. The epithet original may well be applied to our author; and, whilst we give him credit for being an original observer, we must commend his diligence in finding out and displaying to his readers the researches and results of those actively engaged in scientific labours, in Germany and France as well as in England and our own country. In a notice of the book published in Glasgow, he was especially and justly commended for making his countrymen acquainted with the labors of German pathologists. And, indeed, the value of the volume is in the collection of the newest results and opinions of the most active, suc-

cessful, and trustworthy scientific men of all countries. At the commencement of the third section we are told—

“In the previous two sections I have endeavoured to give a condensed account of the present state of diagnosis, and of the pathology of organic diseases. A practical knowledge of the one, and a better appreciation of the other, it seems to me, have been very widely diffused within the last fifteen years. In consequence, a change, almost amounting to a complete revolution in our treatment of disease, has, within that short period, taken place. It is true that this change is not yet reflected in our systematic works, although clinically it is everywhere recognized. For when we compare what the actual practice of medicine is, with what it was, or with what it is represented to be, even in modern books on the theory and practice of medicine, the discrepancy must strike even the least observant. It seems to me that the time has now arrived for calling the attention of the profession, and more especially of its youthful members, to the causes producing so important a result, and pointing out some of those principles on which an improved medical art for the future is likely to be based.”

Dr. Bennett commences with some remarks on the relation of the science to the art of medicine. He considers the remarks of Cullen, “that the truly judicious practitioners and good observers are such as have the most extensive views of the animal economy, and know best the true account of the present state of theory, and therefore know best where to stop in the application of it,” as even more applicable now than when they were written. At the same time, he admits that medicine still belongs to the inexact sciences; it still possesses no primitive fact, though it be possible that it may do so at some future time. Several pages are next devoted to the means of exploration, and here we find are valuable illustrations, enabling the student to understand the use and application of the pleximeter, the stethoscope, and the microscope. The use of chemical tests is set forth briefly, and then our author brings forward what he has to say on the principles of medicine. His remarks on the nosologies of early writers are very true. He very properly calls attention to the difficulties from the use of terms introduced when symptoms were regarded as constituting disease, at the present period, when we are learning so much of the intimate structure of the various organs of the body, and regarding disease as a derangement or disorder of some part or organ.

“In endeavouring to carry out this distinction, however, modern physicians have fallen into a great error, inasmuch as they have continued to employ the nomenclature of our forefathers, and use words which were simply expressive of symptoms, to indicate the altered condition of organs, the cause of those symptoms. Formerly, inflammation meant the existence of pain, heat, redness and swelling; it now means certain changes in the nervous, vascular, and parenchymatous tissues of a part. Formerly, apoplexy meant sudden unconsciousness originating in the brain; now it is frequently used to express hemorrhage into an organ; and, hence the terms apoplexy of the lungs and of the spinal cord. The two ideas are essentially distinct, and bear no reference to each other, because the same word may be, and often is employed under circumstances where its original meaning is altogether inapplicable. Hence it is incumbent on every one who gives to organic changes words which have been long employed in medicine, to define exactly what he means by them. In this way, old indefinite expressions, though still retained, have a more precise meaning attached to them. If, for instance, it be asserted that bleeding cuts short an inflammation, let us understand what is cut short; the symptoms, the physical signs, a congestion of the vessels, or an exudation of the liquor sanguinis.”

Our author now dwells on the general laws of nutrition and innervation in health and disease. He tells us that—

"The various modes in which nutrition becomes impaired, and the blood diseased, can only be understood by passing in review the different steps of the nutritive process. We have already pointed out how pathology and practical medicine must be based upon anatomy and physiology, and there is no one subject, perhaps, which is so well capable of illustrating the proposition, as the one we are about to consider. For ages medical men have been in the habit of considering the blood to be the primary source of numerous maladies. It will be our endeavour to show by an analysis of the process of nutrition, that the changes of the blood, and the diseases which accompany them, are, for the most part, not primary but secondary; that is to say, they are dependent on previously existing circumstances, to the removal of which the medical practitioner must look for the means of curing his patient."

We soon come to an account of inflammation, which is thus introduced:—

"Not unfrequently this attractive and selective power in the tissues is deranged, producing increase or diminution in growth or secretion, general or partial. Not unfrequently the selective power appears to be lost, and the attractive power so much increased, that the liquor sanguinis is drawn out through the vessels, so that its fibrin coagulates in a mass outside them. This result, preceded or accompanied by certain changes in the vessels themselves, and more or less stagnation of the current of blood, constitutes the phenomena hitherto described as *inflammation*. Under these circumstances, other cells and tissues, altogether foreign to the healthy condition of the economy, are produced by what is now called the exudation, although the same general laws of growth and transformation preside over the abnormal as over the normal products. In this manner pus and cancer cells may be formed, or fibrous, cartilaginous, osseous, and other tissues, causing different kinds of morbid growth."

This word exudation is preferred by Dr. Bennett to inflammation. He quotes Andral's remarks: "Created in the infancy of science, the expression inflammation, altogether metaphorical, was destined to represent a morbid state, in which the parts appeared to burn—to be inflamed. Received into general language without any precise idea having ever been attached to it, in the triple relation of symptoms which announce it, of the lesions which characterize it, and of its intimate nature, the expression inflammation is become so very vague, its interpretation is so very arbitrary, that it has really lost its value; it is like an old coin without an impression, which ought to be removed from circulation, as it only causes error and confusion." Dr. Bennett claims for the new term exudation of the liquor sanguinis that it is a demonstrative fact and gives rise to a definite idea. Hence he would substitute for all scientific and practical purposes the expression exudation for that of inflammation.

Words used for centuries are not easily to be laid aside and new ones substituted, without commotion. The controversy in this case has arisen with regard to the application, to the carrying out of the idea. The disease inflammation was treated antiphlogistically. The blood being circulated more rapidly, being unduly determined to a part, to take blood from the system was a very natural conclusion. But, exudation does not suggest venesection, leeches or cupping. The exuded matter is not to be removed artificially, but, by the appropriate organs of the body, which must not be weakened by the loss of blood, but must be stimulated to greater activity, and well nourished to be able to sustain the increased efforts. Dr. Bennett brings out strongly the fact of the disuse of bloodletting which has taken place within the last twenty years. All admit a very great change in the treatment of what were and are still known as inflammatory diseases. The question is, have these diseases changed their type; are our bodies and constitutions different from what they were twenty years ago? are we living under different influences,

modifying the processes of nutrition and innervation, so that when we are diseased we may not be subjected to the same treatment. All our early writers have dwelt upon epidemic influences to be considered in treatment, have pointed out peculiarities of time and season as modifying disease, so that the same disease must be treated differently at different times. We may begin with Hippocrates, and trace in the writings of the distinguished authors who have been consulted and followed in all subsequent periods, the enunciation of a fact of observation of the variations of disease, even in the same locality, at different seasons. Now, it seems to us that Dr. Bennett does not sufficiently recognize this truth. The word inflammation may be more purely conventional, and tell no story of the nature of what it designates. But, neither are all processes set forth in the word exudation, which Dr. Bennett would include under the term. We are still far from understanding so completely the morbid processes included under the terms exudation and inflammation, and we cannot decide by a process of reasoning as to the efficacy of different modes of treatment. We cannot prove in this way that inflammation may not be properly treated by bleeding. We must still learn by experiment, and we have no right to condemn totally the practice of our predecessors in treating by general and local bleeding what they called inflammation. Atmospheric or telluric causes of disease are still to a great degree unknown, but we do find and can appreciate changes in modes of life, which must act upon the human constitution, and influence its susceptibility to the causes of disease, which must produce variations in the history and symptoms of disease. For instance, it is admitted by all that we are living much faster. We move over the earth at the rate of thirty or forty miles an hour; intelligence is being conveyed to us from all parts of the earth with a wonderful rapidity, and the lightning messenger is sometimes charged with deadly news. There is everything to stimulate our nervous systems. Population is being concentrated in cities, competition is greater in professions and trades, fortunes are lost and won with a rapidity before unknown, and civilization calls for a great expenditure of nervous power. There is a disuse of the manly games, of the trials of strength in leaping, wrestling, throwing the bar, in which our ancestors, particularly those living in the country, delighted; recreation is now sought in crowded assemblies or lecture rooms. More are occupied in indoor pursuits. Luxury with its enervating influence is spreading widely. In our own country we are building houses for warmth, smaller and tighter than those of our ancestors, where for several months of the year we are subjected to air heated and burnt by passing over hot iron. The open fireplaces, and the generous wood fires, are fast disappearing. Now all these changes must have a great effect on nutrition and innervation. Muscular exercise in the open air, a quiet, regular life free from excitement, are certainly most favourable circumstances for the formation of a well purified, abundant blood, and for the activity of all the processes of nutrition. We are speaking of causes more efficient in our own country, but which are to a greater or less extent operative in all civilized lands. Our free institutions must be carried on with great expense of nervous power. Agitating political questions are constantly before the minds of the people. By frequent elections the honours and emoluments of office are brought within the reach of, and excite hopes and fears in a very large class of the community. By the growth of large cities, physical causes, in a diminished supply of fresh air, in a less perfect removal of, and a greater exposure to, the excrements and exhalations of the human body, are more widely at work to diminish the vigour of the constitution. We must admit, too, that in the government of our large

cities there are corrupting influences on morals, which must react on the physical nature. We are hearing a great deal of the river Thames, and of the poisonous exhalations from it; we hear a great deal of the corruption and mismanagement of the municipal government of the city of New York, and we may be sure that deteriorating influences, more easily recognizable in those large cities, are, to some extent at any rate, active in the smaller towns scattered through the length and breadth of our own country, of Great Britain and of France, and, perhaps, to a less extent, of the other European countries. The rapidly increasing population of London and Paris, and generally of large cities, the decrease of the rural population, are phenomena of our own time which are exercising influences over nutrition and innervation. At the same time that population is being more concentrated, and that the nervous system is more stimulated, that there is less of out-door life, there is less exposure of many to atmospherical vicissitudes. More attention is paid to the hygiene of cities. The comforts, as well as the luxuries of life are being more widely diffused. Have we any right to say that these important changes in circumstances and conditions have no modifying influences on the processes of inflammation. The traveller who arrives in this country from England remarks at once the absence of the ruddy, full face to which he has been accustomed, and notes the pale, sallow, and care-marked countenance, the more rapid step, the greater devotion to business. It has been said that the production per head is greater in America than in any other country, and this can be brought about only by the expenditure of nervous force. At the same time, too, the material for nutrition abounds, but the nervous power needed to assimilate the aliments is spent in thinking, fretting, or slaving. Surely the great poet was not wrong in his physiology when he makes Cæsar to remark on Cassius that he has a lean and hungry look, and thinks too much. These causes do modify nutrition and innervation; they must modify healthy—they must modify diseased processes; they must necessitate a modification of therapeutic influences; and they are characteristic not solely of our country, but of our age. And we must not entirely set aside atmospherical and telluric phenomena, but must acknowledge an influence on the economy in health and disease which we are far from fully appreciating or understanding. We cannot, then, coincide with Dr. Bennett in attributing the disuse of bleeding solely to an improved pathology. We must allow the testimony of Dr. Alison and his supporters to a change of constitution, to a modification of disease, in virtue of which bleeding is less in repute than it was twenty years ago. At the same time that we recognize truth in what has been said by Dr. Alison and his supporters, we think great credit is due to Dr. Bennett for the great ability with which he has brought forward his propositions, and the valuable group of facts which he has collected in their support. We must admit that we are learning more of the nature of "inflammation," that we know better how to treat it. We are progressing in knowledge in the departments of pathology and therapeutics, though we are still far from a perfect comprehension of the many matters in those domains. It has been said even that therapeutics is suffering from a change of views in pathology, resulting from modern investigations and discoveries, which bring discredit on modes of treatment without pointing out better substitutes. We are still as it were in the twilight of knowledge, and our views are indistinct and uncertain. We sometimes see enough to make us afraid of remedial agents commended by what may be called an unreasoning experience, and yet when we try by reasoning to solve a therapeutical problem, our failures are signal and repeated. We may recognize in the word inflammation a purely conventional term, we must acknowledge that the ideas suggested by it are

erroneous, and have misled those who sought to carry them out in practice. We can no longer look upon bleeding as the sovereign remedy for such affections. We have statistics enough to prove that it is much less efficacious to arrest and control pneumonia or pericarditis than was formerly supposed; yet it seems to us that we must assign some agency to peculiarities of modes of life, of states of the soil, of the atmosphere in modifying the susceptibility of the economy to inflammation on the one hand, and to bleeding on the other; and here we must differ from Dr. Bennett. We can discover truth in what has been written by Dr. Alison of the changes of constitution, and, at the same time, we can admit the correctness of Dr. Bennett's conclusion, that the older practitioners were led to use venesection too freely by pathological views which modern discoveries have shown to be erroneous.

The chapter on *The Morbid Growths of Texture* is clearly written and well illustrated by plates, making it a valuable means of information to the student. Dr. Bennett says truly—

“That the exclusive study of morbid growths sometimes, as they affect internal, and at others external parts, has led to limited views of the subject. The surgical tendency, to speak of them as tumours, and to regard them in reference to the great practical question of excision, has interfered with the true pathological doctrine, namely, that however or wherever produced, they are essentially the same. No doubt they are very common in external parts, simply because all growth proceeds best on surfaces where there is room for expansion; but this accidental circumstance should not induce us to suppose that they are peculiarly surgical. In truth, their study belongs to pathology—that science which constitutes the basis of all branches of the medical art.”

The classification of morbid growths has been found very difficult, and our author tells us that the hope has proved vain that, by studying the ultimate structure and mode of development of morbid growths, a new foundation for classification would be discovered. He thinks that structural elements may be reduced to six. 1st. Molecules and granules; 2d. Nuclei; 3d. Cells; 4th. Fibres; 5th. Tubes; and 6th. Crystals or irregular masses of mineral matters. He thinks that no combination of these elements will serve to characterize morbid growths, and he thinks the microscope destined to be of infinite importance in pathology and diagnosis by its aid in a careful investigation of the mode of arrangement of these elements; but to this must be joined a careful study of the clinical facts of each case. These growths, often containing several alimentary principles, chemistry cannot give a basis of classification.

“The best classification, therefore, is one founded on our knowledge of the compound textures of the growths themselves, assisted, as far as varieties are concerned, by their similitude to well known objects or accidental circumstances, which have long been received in pathology as standards of comparison.”

Dr. Bennett objects to the terms *innocent* and *malignant*, as almost every kind of growth may be innocent in some cases and malignant in others; but he approves of names taken from the anatomical character, as *fibroma*, *lipoma*, *epithelioma*, or from resemblances to well known objects, as *hygroma*, *atheroma*, *sarcoma*. In remarks on the development of morbid growths, the manner of which is described as of three kinds, figures are shown, one from Kölliker, representing cell structures in the softened articular cartilage of man, and another by Redfern, showing similar formations in a cancerous exudation into the brain. In both, the mode of cell development is similar, the one having its origin in pre-existing articular cartilage-cells, and the other arising in the new cells of an exudation.

"In the cornea and epithelium, similar changes occur, as well as in the bones and mesenteric glands; yet these lesions, so closely allied in their essential nature, have, in these different textures, been called different names, and widely separated pathologically. In the non-vascular cornea and cartilage, it has been called inflammation, but in the equally non-vascular epithelium, it has been named cancer. Again, in the vascular bones and glands, it has received various names, such as osteo or medullary sarcoma, enlarged glands, etc., whilst in the brain and other localities, it has been called encephaloma, or soft cancer. It seems to me that in all these cases the lesion is the same, and that an advanced knowledge of their nature should lead us to group them together, calling some of them inflammation and others cancer; supposing the first to be innocent and the last malignant is, we contend, incorrect pathology. True pathology points out that all these lesions are equally destructive, in consequence of increased endogenous cell-growth, and practical experience has long determined the question of their all being alike difficult to control."

Before taking up diseases of the nervous system, Dr. Bennett devotes a few pages to a consideration of the influence of predominant ideas on the body. This is a very important matter, most interesting to the practising physician who would try to understand somewhat phenomena which are constantly under observation. Certain men have a power of gaining the confidence, of guiding the wills of their patients. They can effect cures and relieve pain in a manner apart from any successful diagnosis or skilful handling of drugs or other remedial agents. It is told of the coachman of a most successful practitioner that, in a conversation on the subject of his master's success, he said: "Why, the very sight of our carriage cures some people." Now, there are well informed, scientific physicians who, from the want of this power, are in small repute as practitioners, and whose reputation with their fellow-practitioners and with scientific men is widely different from that which is accorded them by the public. The success of charlatans, the cures worked by charms, amulets, and relics, the effect of the king's touch upon scrofula, the cures by Mesmer, by medical tractors, receive some explanation by a consideration of this agency of mind upon the body. Many of the phenomena of what is called animal magnetism, the power of putting others to sleep, of keeping them in a sort of trance, of directing and controlling them, must be acknowledged, and is hardly explained. Faith, belief must be acknowledged as very efficacious to work cures. And this power is not sufficiently appreciated by some scientific men; and those practitioners who possess and exercise it are denounced as charlatans. There are those who seem to think that, by extending knowledge by means of popular lectures and popular treatises on anatomy, physiology, and chemistry, the medical profession is going to put down quackery, and to increase its power over the public, and to produce a willing submission to it. But experience and observation do not justify any such expectations. Homœopathy, hydropathy, eclecticism, flourish by the side of a widely diffused popular knowledge. Nostrums and cure-alls are widely patronized by those who know enough to distrust regular physicians. Faith, submission, and obedience must be recognized as most favourable to the success of the art of healing, and no practising physician can afford to neglect any power he may have of gaining and keeping the confidence of his patients. This power may be used legitimately. It is often abused, but surely, on this account, it may not be despised. A conscience sensitive to the rights of others is needed in dispensing such powers; but because they are often possessed by those who do not resist the temptation of using them selfishly, we must not impugn their efficacy.

Our author offers a structural explanation in this connection which, from

its ingenuity, may be here repeated. After speaking of what has been called hypnotism by Mr. Braid, he goes on to say :—

“We have previously seen that the cerebral lobes contain white fibres, which run in three directions. 1st. Those which pass from below upwards and connect the hemispherical ganglion with the spinal cord; 2d. Those which pass transversely, forming the commissures, and which unite the two hemispheres; and 3d. Those which run from before backwards, uniting the anterior with the posterior lobes on each side. It has also been stated that these fibres are probably subservient to that combination of the mental faculties which characterizes thought. Now, all metaphysicians and physiologists are agreed that the mind is composed of various faculties, and that different parts of the nervous mass are necessary for their manifestation. True, it is by no means determined what or how many faculties mind should be divided into; still less is it known which parts of the brain are necessary for the manifestation of each. But let the first proposition be granted, then there is no difficulty in supposing that one or more of these may be paralyzed or suspended, while others are entire, any more than there is in knowing that sensation may be lost whilst motion remains intact, although the nerve fibres of both run side by side. I presume, then, that certain mental faculties are, as the result of exhausted attention, temporarily paralyzed or suspended, whilst others are rendered active in consequence of being stimulated by suggestive ideas; that the psychical stimuli of the former make no impressions on the cerebral conducting fibres, whilst those of the latter are increased in intensity; that the proper balance of the mind is thereby disturbed, and thus the individual, for the time being, acts and talks as if the predominant idea was a reality. The condition is analogous, so far, with ordinary somnambulism, certain forms of hypochondriasis, and monomania, but admits of infinite changes according to the nature of the idea suggested.”

We should have preferred Dr. Bennett's alluding to the supernatural in this connection. We think that there is much in his remarks, as far as they go. He does not seem to us to pretend to understand and explain everything, but we should have liked a more distinct acknowledgment that “there are more things in heaven and earth than are dreamt of in *his* philosophy.” We have no sympathy with the fanaticism of mesmerists and spiritualists. On the other hand, we cannot commend the attempts of some to explain away phenomena which may be unintelligible, and to set aside as false what is simply above and beyond their powers of comprehension. No truly religious man—whether he be Christian, Jew, or Mohammedan—can deny that men have been endowed with supernatural powers of healing, or that in visions of the night future events have been revealed. Our relations Godward should never be lost sight of. His infinite power and wisdom, human weakness and folly, are truths which should be well graven on the mind of the medical philosopher in his dealings with such mysteries as life and death, and we must express our fears that our profession and our science have suffered by a dim appreciation of the divine source of truth, which Van Helmont describes to us as revealed to himself only after much study and meditation. The infidelity of our day does not deny the existence of God, but refuses to acknowledge His agency—undertakes to understand and explain everything by general laws, and does not recognize a personal intervention in the affairs of men, nor the relation of each individual to a Creator and Father of infinite power and love, whose works and whose dealings must be studied with reverence and fear, and can never be fully understood by the frail and sinful creatures of a day.

Early in the section on diseases of the nervous system, we find some valuable remarks on the pathology of spinal and cerebral softenings, and on the necessity of employing the microscope to ascertain their nature. There



are six kinds of softening described; the first, exudative or inflammatory softening, always containing granules and granule-cells, and thus distinguishable from hemorrhagic, mechanical, and putrefactive softenings. There is often great difficulty in connecting morbid appearances found in the brain with the symptoms recorded during life, and any suggestions on such matters are valuable.

Dr. Bennett's classification of functional nervous disorders seems to us philosophical. He makes four divisions—those in which the cerebral lobes are affected, as insanity, apoplexy, trance; those in which the cranial and vertebral portions of the spinal cord are affected, as tetanus, chorea, hysteria; those in which both cerebral lobes and spinal cord are affected, as epilepsy and catalepsy; and fourthly, neural disorders, in which the nerves are affected during their course or at their extremities. The old division of nervous centres into brain and spinal marrow is not convenient, since the brain itself, or the nervous centre contained within the skull, is looked upon as a collection of nervous ganglia, each of which has its peculiar function. We have still a good deal to learn, but Dr. Bennett's division seems to us convenient at this stage of our knowledge.

The author's power of setting forth clearly and concisely what is generally known and received may be appreciated by reading the section on the Pathology and General Treatment of Phthisis Pulmonalis, as well as that on its special treatment. The connection between the science and art of medicine is well shown, as all discoveries made by the aid of the microscope, chemical analysis, physical exploration, are compared with what experience tells of the efficaciousness of certain medicinal agents, as well as of regimen and climate.

Dr. Bennett's pathological researches do not lead him to neglect therapeutics, nor to deny the efficaciousness of remedial agents. He tells us early in his work that medicine is not an exact science, and he sets before us much that may be true, but which cannot now be proved to be so. He endeavours to bring before his readers the means of appreciating the value of evidence. He does not neglect therapeutics because its results proceed from experiment more than from reasoning. The school of Vienna, as well as that of Paris, has been reproached with a neglect of studying how to cure disease, whilst its students have been so active and so successful in pointing out how to distinguish and recognize it. Our author shows an intimate acquaintance with the researches of these inquirers, and, at the same time, gives due prominence to the practical question of therapeutic means and remedial agents which are so much more dwelt upon in the writings of his own countrymen than in the treatises of continental authors.

We are glad to find him, in pleasing contrast to a distinguished writer of our own country, not fettered or restricted by the old boundaries of solidism, humouralism, and vitalism. He points out how and where solids and fluids are diseased and the moving principle is disordered. He tries to show how intimately all are connected, and that blood, bile, and urine pass through and are modified by solid glands, which are supplied with nervous power; disturbing influences acting now on solids, now on fluids, or now on moving power, giving rise to disease and disorder. He traces disease to these different elements, without pretending to such a thorough acquaintance with their connections as to enable him to distinguish the precise agency of each. He does not profess to have found a point of view from which all the phenomena of disease can be seen, and their connections and relations traced out and understood.

Dr. Bennett's book is practical, and certainly very suggestive. We can

scarcely open a page without coming upon something of interest, and which might well be the subject of remark. He has been long, however, before the public, and we have now an arrangement with more detail, and a collection of much that has been said before. The title of his book is appropriate. We find in it clinical lectures on medicine, and not a complete treatise. Cases are well brought in to sustain his conclusions, and to show how he has been led to form them. There are opinions from which we should dissent, and a sufficient appreciation by the author himself of the value of his researches is plain enough everywhere. Oblivion of self is not as frequently met with amongst men of the intellectual powers and activity manifested by Dr. Bennett as could be desired. Self-love and self-seeking are often impediments in the way of truth. Dr. Bennett's reputation, however, is well established. He has done a great deal to assist and instruct the practising physician, and we are sure that all such who will take the time to make themselves acquainted with this second edition of his clinical lectures will not regret their labour. G. C. S.

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ART. XVI.—*Observations on Naval Hygiene and Scurvy, more particularly as the latter appeared during a Polar Voyage.* By ALEX. ARMSTRONG, M. D. R. N., etc. etc. Author of *A Personal Narrative of the Discovery of the Northwest Passage*. 8vo. pp. 117. John Churchill: London, 1858.

It is not pretended that this is a systematic treatise on naval hygiene or on scurvy. The observations on scurvy are chiefly derived from the author's experience on board of H. M. S. Investigator in the arctic regions. Sir Gilbert Blane's gold medal was awarded to him for his journal of practice on board of that ship.

At the present day, scurvy is rarely prevalent in the navy, and, in the opinion of Dr. Armstrong, when it "does unhappily break out, its appearance can always be traced to the neglect of proper preventive measures," the chief of which is the daily use of lemon-juice, an article employed for the prevention and cure of scurvy as far back as 1564; but it was not until 1795 that the British admiralty were induced to direct that lemon-juice should be issued to the British navy for this purpose.

"From this period a new era dawned upon our navy. The health of our seamen became wonderfully improved, and the efficiency of our fleets was greatly increased, when it was found that ships could keep the sea for any length of time, although deprived of that kind of diet [fresh vegetables] the want of which had been hitherto attended with such disastrous results. This happy state of things, which has contributed so much to the efficiency of our navy, and to the greatness and prosperity of our country, became established by the introduction of lemon-juice and its judicious employment as a means for the prevention and cure of a disease that had previously been the dread of sailors and the scourge of the sea."

Too much is here attributed to a remedy which is generally acknowledged to be efficient. The healthy condition of the British navy does not depend, in any considerable degree, upon the daily use of lemon-juice by all seamen who have been more than fourteen days at sea, eating the salt ration. The writer believes that the health of the navy of the present day had its origin in those measures which were consequent upon the mutiny at Spithead and the Nore,